

CLAIMS:

1. A collimator for use in an optical device characterized in that it comprises a multi-layered sheet of alternating light transmitting and light impervious layers.
2. A collimator according to claim 1, wherein said sheet comprises at least two light transmitting layers and at least three light impervious layers.
3. A collimator according to claim 1 or claim 2, wherein the light transmitting layers are made of at least one transparent amorphous polymeric material.
4. A collimator according to any one of claims 1-3, wherein the light impervious layers are made of at least one light absorbing and/or light scattering polymeric material.
5. A collimator according to any one of claims 1-3, wherein the light impervious layers are made of a polymer matrix comprising at least one type of light absorbing and/or light scattering particle or compound.
6. A collimator according to any one of claims 1-5, wherein each light impervious layer comprises a first section of light scattering material and a second section of light absorbing material.
7. A collimator according to any one of claims 1-6, which comprises projecting parts of the light transmitting layers on the side of the collimator intended to face a light source, each layer part having a lens-shaped end.
8. A method for producing a collimator according to any one of claims 1-7, characterized in comprising co-extruding a melt of at least one light transmitting polymeric material and at least one light impervious polymeric material into a multi-layered sheet.

9. A method for producing a collimator according to any one of claims 1-7, characterized in comprising injection molding a melt of at least one light transmitting polymeric material into layers separated by vacant spaces and connected by a common base part, and
- 5 filling a melt of at least one light impervious polymeric material into the vacant spaces thus providing a multi-layered sheet.
10. A display device comprising a collimator according to any one of claims 1-7.
- 10 11. An illumination device comprising a collimator according to any one of claims 1-7.
12. An optical touch sensitive device comprising a collimator according to any one of claims 1-7.